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Unequal Hopes, Lives, and Lifespans in the USA: Lessons from the New Science of Well-Being

Carol Graham

The Brookings Institution

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Policy Brief

Unequal Hopes, Lives, and
Lifespans in the USA: Lessons from
the New Science of Well-Being

Carol Graham

No. 53/2018

Carol Graham is the Leo Pasvolsky Senior Fellow at the Brookings Institution, a College Park Professor at the School of Public Policy at the University of Maryland, and a Senior Scientist at the Gallup Organization. Graham's research focuses on poverty, inequality, subjective well-being, the economics of happiness, and development economics. She has testified in Congress several times and has appeared on NBC News, NPR, and CNN, among others. Graham is the author of numerous books, journal articles, and book chapters. Her most recent book, *Happiness for All? Unequal Lives and Hopes in Pursuit of the American Dream* (Princeton University Press, 2017), highlights the importance of well-being measures in identifying and monitoring trends in life satisfaction, optimism, misery, and despair, and demonstrates how hope and happiness can lead to improved economic outcomes.

The Herbert Lourie Memorial Lecture on Health Policy, sponsored by the Maxwell School of Citizenship and Public Affairs of Syracuse University and the Central New York Community Foundation, Inc., honors the memory of Herbert Lourie, MD, a distinguished Syracuse neurosurgeon, professor, and community leader for nearly 30 years. Generous contributions from his family, friends and colleagues, and former patients have endowed this series.

The Policy Brief series is a collection of essays on current public policy issues in aging; urban and regional studies; education finance and accountability; public finance; social welfare, poverty, and income security; and related research done by or on behalf of the Center for Policy Research (CPR) at the Maxwell School of Syracuse University.

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Policy Brief

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Introduction

I use well-being metrics – a new measurement tool in economics – to explore questions that standard income-based metrics do not answer. While standard income metrics use observable choices, such as consumption decisions, as the basis of analysis, there are many situations where it is difficult for any individual to exercise a choice. My research focuses on two areas. One is the welfare effects of macro and institutional arrangements that individuals cannot change, like inequality or stagnant unemployment rates. An example of this is the high (20) percentage of prime-age males who have simply dropped out of the labor force. While our standard indicators highlight record lows in the unemployment rate, these individuals are no longer even in the calculation. If an individual has not actively looked for a job in the past six months, he or she drops out of the overall pool from which the rate is derived. (Graham 2017) Therefore, they simply disappear from the story that standard metrics tell.

My second area of research focuses on behaviors driven by imposed norms, addiction, or self-control problems, rather than by informed, rational choices. I often use the example of someone from a lower caste in India who does not send their child to school. That is not a choice, but rather a result of strongly imposed norms: if someone is in a lower caste, they will always be in a lower caste. If that is the child's fate, why send him or her to a school that is dirty, dangerous, and expensive? That decision is not a revealed *preference*—but

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rather the result of a lack of choice. We can measure the well-being effects of such choice—or lack thereof—with these metrics.

Most of my career has involved traveling around the world to some of the worst slums, looking at poverty and inequality, micro-level coping strategies under bad macro conditions, and, more recently, the happiness and well-being among some of the poorest people in the poorest places in the world. For almost a decade, though, I have been coming back to the U.S. and thinking, “What is it that makes me more depressed about poverty here than in these other very poor places? What is going on?”

Eventually, I decided to take time to understand the U.S. trends better. I found myself asking why Americans, even poor Americans, do not seem to care about inequality when we are by most definitions one of the most unequal countries in the world. In part, this is because the standard data and measures do not tell a dynamic story about poverty and inequality, and they certainly do not show intergroup inequality, which is what people really care about.

I decided, given that we have had historic increases in inequality, as well as stagnant poverty levels for several decades, to tell the story of poverty and inequality in the U.S. from the perspective of the metrics of happiness and well-being. I thought the story would resonate more with people, and particularly non-academics, if it were a message about unequal hope, happiness, and stress. My research—and the book that resulted—found that inequality is part of this story, but not the only part. The story was much more complicated than I anticipated. One of the most interesting parts of the story includes different levels of hope and resilience across races and places. Poverty and inequality play a big role, but there is much more to it.

New Metrics for Looking at Inequality of Outlooks and Outcomes: Economics of Happiness/Well-Being

I am going to talk about the latest research I have done on premature mortality in the U.S., and how I match those trends with metrics of desperation, stress, and anger. I will also discuss the latest research on hope and resilience, explain what determines each, why it matters, and why it differs across populations. Before doing so, let me tell you a little bit about the resources that we use to measure inequality.

I started the research with a very simple concept, the pursuit of happiness. When Thomas Jefferson included this concept as a central tenet in the Declaration of Independence, he was grounded in Aristotle's definition of happiness and in Mill's conception of liberalism, which combines social fairness with individual effort. It is not about guaranteed contentment, but about the right of all individuals to seek fulfilling lives. The basic question I asked in my book, *Happiness for All? Unequal Hopes and Lives in Pursuit of the American Dream*, published by Princeton last year, was "Is the American dream and the right to the pursuit of happiness still available to all citizens today?" Maybe it never was, but I believe it was more widely available decades ago than it is now, for many reasons I will discuss later on.

My research explores why increasing distributions of income, well-being, and hope matter today, and why they will matter more in the future. The 2016 election, which woke us up to an anger and frustration in this country that we did not even know existed, was a stark marker. An even starker one is the rising premature mortality rates due to preventable deaths, such as drug overdose and suicide among less-than-college-educated Whites—the so-called "deaths of despair."

How Should We Measure Well-Being?

Happiness is paramount in discussions of well-being, and therefore, gets the most public attention. While it sells books, it is also one of the least well-defined terms for research purposes. There are a plethora of meanings behind it. It could mean happiness today—“Are you happy today?”—but it could also be referring to happiness with life as a whole. These two examples alone are very different concepts.

We have a completely new science of well-being measurement that brings much more clarity to these questions. It started as a very nascent collaboration between economists and psychologists, and at the time, I was one of the early scholars involved in this study. I was able to work with others in the field like Danny Kahneman, Dick Easterlin, and George Akerlof. These collaborations were initially met with skepticism by mainstream economists, but have now become quite a force in the field. We now have geneticists, biological scientists, and medical doctors working alongside us. It has been exciting to work in what is now a burgeoning area for understanding a host of public health issues and other problems.

We can answer questions as diverse as the effects of commuting time on well-being, why cigarette taxes make smokers happier, and why the unemployed are less unhappy with higher local unemployment rates. Economists would say that if someone is unemployed and there is a higher local level unemployment rate, their predicted probability of being re-employed later is lower. Yet, the average Jane or Joe does not sit around calculating their predicted probability of anything, and if there are more unemployed people around them, they feel less stigmatized.

The basic analytical approach in economics is based on observed, revealed preferences, such as consumption choices. This is based on the assumption that we cannot believe what people say in surveys—as there is no consequence to what they say—but we can

believe what people do if they make a consumption choice within a fixed budget constraint—which therefore has consequences and trade-offs. But in reality, some people make bad consumption choices to keep up with the Joneses, while others consume badly due to addiction and self-control problems. There is now much evidence suggesting that consumption decisions are not much better than survey data. Over time as we have used more survey data, we have found consistent patterns in how people answer these surveys, particularly about their well-being.

Indeed, I have spent a lot of time simply trying to get good data on income and poverty rates for different countries around the world. The gold standard for collecting income data in poor countries is the usage of expenditure surveys, where the researchers ask how much people have spent in the last month. This data is incredibly noisy because we are asking people who do not have a paycheck to tell us what they earned in the last month. Plus, there are often tax consequences to reporting income in these contexts, and thus strong incentives to under-report. Yet there is also no real incentive to lie to a survey about your well-being. As such, economists are now increasingly using survey data, which has opened the door to the study of hosts of questions that standard income metrics and revealed preferences questions cannot answer.

Terminology: From Bentham to Aristotle

I already mentioned that the word happiness is not a very well defined term. In my book, *The Pursuit of Happiness: An Economy of Well-Being*, there is a section in the first chapter titled “Should We Have Bentham or Aristotle in the Statistics Office?” I pose this question and conclude that we should have both. We can easily measure these two distinctions of well-being and they tell us very different things about people’s lives.

Hedonic well-being measures how people experience their daily lives. Is their mood positive or negative? Were they smiling or

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worried yesterday as they commuted, spent time with friends, or worked? British philosopher Jeremy Bentham defined happiness as the most contentment possible for the greatest number of individuals in society. This is a concept, which primarily reflects the hedonic concept of happiness, which is how people experience their daily lives. (Stone and Mackie, 2013)

We also measure evaluative well-being, which is based on life satisfaction questions such as, “How satisfied are you with your life as a whole?” This correlates closer with income than general happiness or with hedonic well-being, because respondents are evaluating their life circumstances as a whole. For example, if someone is young, they tend to think about what their life will be like as they answer these questions. If someone is old, they will usually look back on what they have achieved—if they were able to lead a life that they wanted to and if they had choices in life. Not surprisingly, answers to these evaluative life questions are more closely associated with income than to hedonic well-being. It does not mean that more money leads to higher scores, but rather people with means will answer higher on these questions, in large part because they have more choices in life. They have the ability to choose to be an artist, a professor, or a banker.

We have also started to measure the Aristotelian, or eudaimonic, dimension of happiness. We explicitly ask whether people have purpose or meaning in their lives explicitly. That is a new area. However, in the absence of these questions, the life satisfaction question largely picks up that dimension of life.

The Method and the Patterns

$$W_{it} = \alpha + \beta x_{it} + \varepsilon_{it}$$

Above is a simple equation, that by definition, shows that we are not asking people if unemployment makes them unhappy, or if eating ice cream makes them happy (although it likely does). Instead,

we take these large sample sizes of millions of people around the world, in the data from the Gallup Organization, as well as a handful of other large-scale surveys. The Gallup World Poll, for example, has surveyed approximately 1000 people per country per year in 162 countries around the world, while the Gallup Healthways poll surveys 1000 individuals per day throughout the U.S. Both polls are nationally representative where they are fielded, and have an extensive set of questions on well-being in addition to the usual socio-economic and demographic data, such as respondents' age, income, gender, occupation, health, and marital status, and region.

We take the reported well-being of individual i at time t (when they are answering the survey). This type of question needs to be asked up front in the surveys, because we do not want to ask somebody about their life satisfaction after several questions about their satisfaction with their job or their marriage, as that would introduce bias. Respondents do not know that we are linking that response to the other questions we ask them—their demographic traits, age, gender, race, where they live (urban or rural), their socioeconomic traits, education, employment, and occupation, for example.

The dependent variable in the equation is the well-being of individual i at time t and the β_{xit} is the vector of all the demographic traits mentioned above. Epsilon, the error term, is also an important part of this. Most standard econometrics treat the error term as noise in the data that one did not observe or could not explain. However, an average of 90% of individual well-being is not explained by anything else in this equation, but rather by innate character traits and other variables that we cannot observe. Thus, the error term carries a lot of information about people's innate levels of well-being and their character traits.

We have used the data from the error term to show how innate character traits and unexplained well-being correlates with future outcomes, and that individuals who have more innate well-being

tend to do better, be healthier, and live longer. The distribution of well-being across people is bell-shaped like most normal distributions. People considered average are in the bell, but the happiest people, and the least happy people, are on the opposite sides of the bell, and they are quite different. (Graham and Nikolova, 2015)

The happiest people care least about money, they love learning and creativity, and they do not care if they are employed full time or not. The least happy people care most about money, and they are not at all resilient to negative shocks. There are very different traits on these extremes of the distribution. However, going back to the average, what we find in countries of different cultures all over the world, is that there are incredibly consistent patterns in the determinants of life satisfaction.

Income matters to people's well-being, as does health. Health is more important than income in relative terms, to the extent that we can put relative magnitudes or relative weights on these coefficients in our equations, and we know that through empirical work and anecdotal stories. Employment matters a lot, and so do social relationships and marriage.

Two Happy People are Better than One: The Trends

Surveys find that married people are happier than non-married people are. In turn, there are a lot of press that have noticed, and told everyone that marriage makes people happy. On the contrary, marriage is simply an artifact of construction in the data, because we have cross sectional data: one observation at one point in time and many people. We are finding that married people are happier than people who did not marry, in part because happier people are more likely to marry each other. Therefore, the causality could run in the other direction, and likely does, and the people that did not marry are less happy to begin with. (Graham, 2009) As such, we

have to be very careful about inferring causality when there is only one observation for people at one point in time.

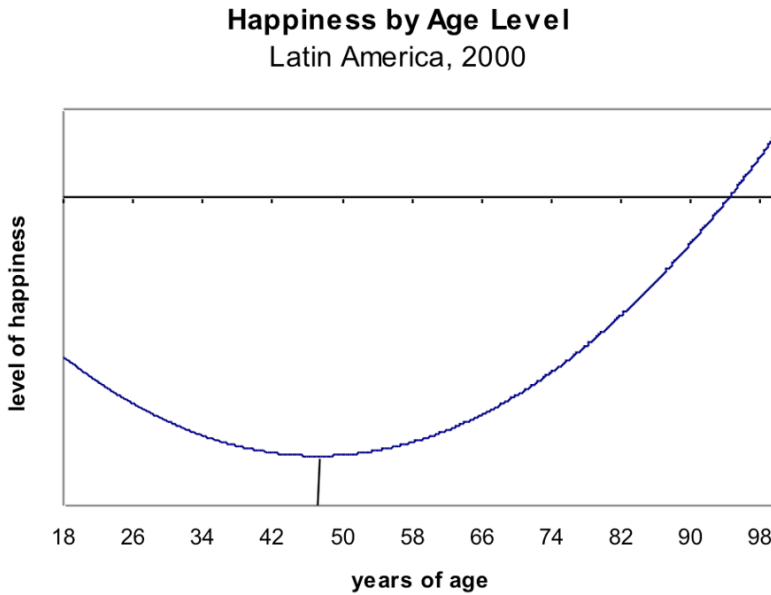
The few findings we have about marriage suggest that over time, marriage boosts in happiness last only 18 months. Cahit Guven and Claudia Senik, who co-authored the paper *You Can't be Happier than Your Wife. Happiness Gaps and Divorce*, did have over-time data from a large data set for Germans that runs over 20 years. (Guven et al., 2012) They found that the probability of divorce was highest when the couple had asymmetries in happiness levels. Therefore, it is better to have two happy people married to each other or two unhappy people married to each other. However, if a happy person and a miserable person married each other, they will likely not last.

More generally, though, because the basic correlations of happiness are so consistent around the world, we can control for those. We include these controls in our equations, and then can explore the happiness effects of things that vary or change more, such as inflation in unemployment rates, inequality, environmental quality, and personal behaviors such as smoking, exercising, and commuting time. Again, the most important thing to remember is that we are not asking people if any of these things make them unhappy or happy. We know, for example, how much they smoke or how many hours they commute, and we can see variants across people who smoke more or less, or commute more or less.

The Curved Data on Age

One more point about the methods. They will make you unhappy or happy depending where you are on this curve, but there is a “U”-shaped relationship between happiness and age. This is controlling for age-adjusted health, age adjusted income, and a couple of other factors. We do not expect a 75 year old to have the same health as a 45 or 25 year old. We are looking at the pure effects of aging.

Figure 1



What we find in data for Latin America is that the low point is around 47 years of age. For the US and Europe, it is around 44 years of age. (Blanchflower 2008) Out of 162 countries in the Gallup poll, we find that this holds for about 130 of them. (Graham and Ruiz-Pozuelo, 2017) Where it does not hold is countries where it is harder to age, where pension systems are bad, and where it is awful to be sick when you are old.

In happy countries like Costa Rica and Denmark, the curve turns earlier. People get out of the “U,” and because they have more happy life years, they do better over their life course. In places where it is harder to age, like Russia, the turning point is about 60 years old, which is the life expectancy for males. (Graham and Ruiz-Pozuelo) One can draw their own conclusions about what is happening to the women as they go up the curve after the men die.

Previously, I mentioned the happiest people and the least happy people on this bell-curve distribution. Because the happiest people live longer and are happier in general, they have more happy life years. Note that there is also something biological going on which extends beyond reported happiness. We also find in precisely the same set of countries, stress has an inverse “U” turning in this same age range. (Graham and Ruiz-Pozuelo, 2017) There are a couple of factors contributing to what is going on in these middle-age years, which is not that surprising.

During this time, there is an aspirations aligning with realities effect. For example, by the time someone is 47 years old, and cannot sing or play guitar, he might give up on being a rock star. That can be hard. There is also often the double financial burdens of teenage kids, college kids, and older or aging parents, which tend to come together in these years. Psychologists also have related explanations, and discuss emotional wisdom increasing as people age. Therefore, as people age, they become more appreciative of life and have fewer emotional swings.

In economic terms, I think about this as the standard deviation of bad experiences being much higher when one is younger, because the young have had fewer bad experiences to serve as a benchmark. However, as one gets older, he has had so many bad experiences, that they just roll off his back.

It is also worth noting that this extends beyond humans. Andrew Oswald wrote a paper titled “Evidence for a Midlife Crisis in Great Apes Consistent with the U-shape In Human Well-Being,” which compared the well-being in chimpanzees to humans. He found that their cheerfulness also declined at the midpoint of their life years. (Oswald et al., 2012) This “U”-curve is incredibly lasting and crosses countries, cultures, and people. It also shows how this research pulls together biological research, psychological research, and economics research.

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To today's point, when looking at the U.S. in its current state, a significant proportion of Americans are not making it out of this "U." They are primarily less-than-college educated Whites, who are dying of preventable deaths due to lack of hope, stress, and desperation—all markers of deep unhappiness.

Daily Experience versus Life Fulfillment

If we analyze the two kinds of happiness, daily experience versus life fulfillment, part of what we find is that people with more positive attitudes about their future and a belief in the future, are happier. This tends to be linked with more willingness to invest in the future and in better future outcomes in the health, income, and social behavior arenas. This is where we find a two-way causality not just between better health and more income and happiness, but more well-being and happiness seems to result in better outcomes in these same areas.

Still, many people have limited future opportunities and low levels of well-being, and they have higher discount rates. In economic terms, this means they are much more likely to trade off the future for the present. If someone does not believe in their future, they have limited ability to invest in it, and they are much less likely to do so. They tend to focus on daily experiences as they lack the capacity to plan. Life is very stressful, due to constant shocks driven by circumstances beyond the individual's control. Our analysis of the data shows that this "bad stress" often comes with lack of income, education, and opportunity, and is much worse for their well-being than is stress associated with goal achievement.

There is some great work by Sendhil Mullainathan and Eldar Shafir in a book called *Scarcity*, which focuses on very poor countries. If we think of the kinds of lives that poor people in the US lead, they are not that different. Their lives are also full of negative shocks that they cannot control, which ultimately has cognitive effects, which makes people lose the capacity to plan going forward. They

may enjoy daily experiences, they may say they are happy today, but they score much lower on life fulfillment questions and have a much harder time for a handful of reasons. People with capabilities and opportunities are more likely to focus on the longer-term dimensions of their lives and the stress they experience, which is mitigated by income, education, and hope for the future, and is less harmful for their well-being. (Graham and Nikolova, 2015)

Attitudes about Inequality – Are there Two Americas?

I believe that there are two Americas, maybe three, or four, but let us start with two. One of the questions I posed early on was, “Does U.S. exceptionalism, strong beliefs in the American dream, and lack of concern about inequality still exist today?”

As late as 2001, Americans did not seem to care about inequality. There is a great study, by Alberto Alesina and some other colleagues, on inequality and happiness which compares the U.S. and Europe. They found that in Europe, inequality had modest negative effects on reported happiness, and they were strongest for the poor. (Alesina et al., 2004) This makes sense—if there is more inequality, people are at the bottom, and it will affect them more.

At the time, the only group in the U.S. that was made unhappy by inequality was the left-leaning rich. In 2016, 62% of Americans thought their children would be worse off than they were—this has since been confirmed in other surveys. The directions of the findings are the same, and about 33% think their children will be better off than them. These percentages are comparable to countries in the Organization for Economic Co-operation and Development (OECD) like Spain and Portugal, but not all countries. In Latin America, only 13% of Chileans, for example, think their children will be worse off than they are. (Graham, 2017)

A much more anecdotal way to get a picture of this theory comes from a study by David Leonhardt in the New York Times, based

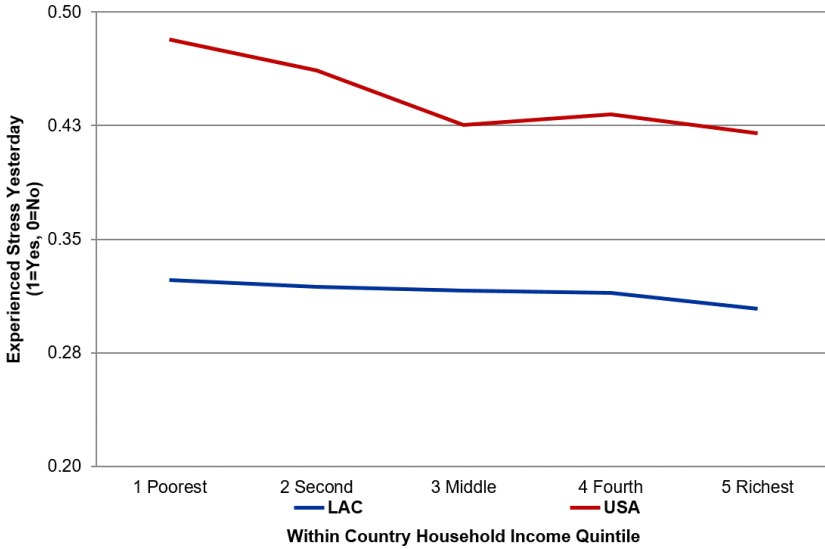
on words and social media. The results showed that depending if someone's home is in an easy area to live in America—northwest Washington, Seattle, Portland—or a bad place—Detroit, bad parts of St. Louis, Duluth—the words they used are very different.

The common words in poor America are guns, religion, hell, antichrist, stress, obesity, diabetes, video games, and fad diets. This is very much the combination of a lot of stress, too many momentary things, and patched together solutions. In comparison, the common words in rich America are iPads, cameras, baby joggers, baby Bjorns, foam rollers, cameras, and exotic travel destinations like Machu Picchu. (Leonhardt, 2016) These words show more of an investment in health and knowledge, investment in children's health and knowledge, and broadening horizons. These could be two Americas.

Happiness for All? Unequal Hopes and Lives in the Pursuit of the American Dream and Future Research

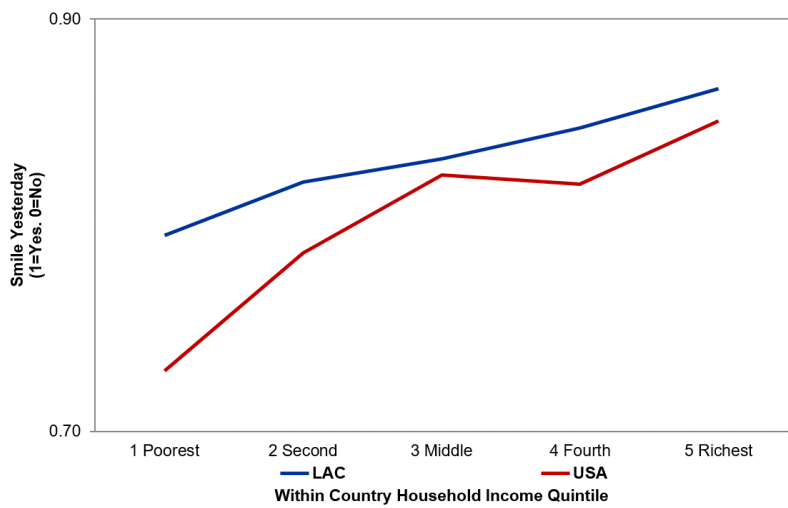
Some of the data I have collected and examined paints a stark picture of unhappiness in the U.S. I am involved in data collection efforts from both the Gallup Healthways and World Poll surveys (discussed above). Using these data, I compared well-being and attitudes about the future in the U.S. and Latin America, a region long known for exceptionally high rates of inequality. Then, within the U.S., I explored how trends in well-being and ill-being varied across racial and socioeconomic cohorts. We next matched those trends with CDC data on premature mortality due to “deaths of despair”—deaths from drugs, alcohol, and suicide.

Figure 2



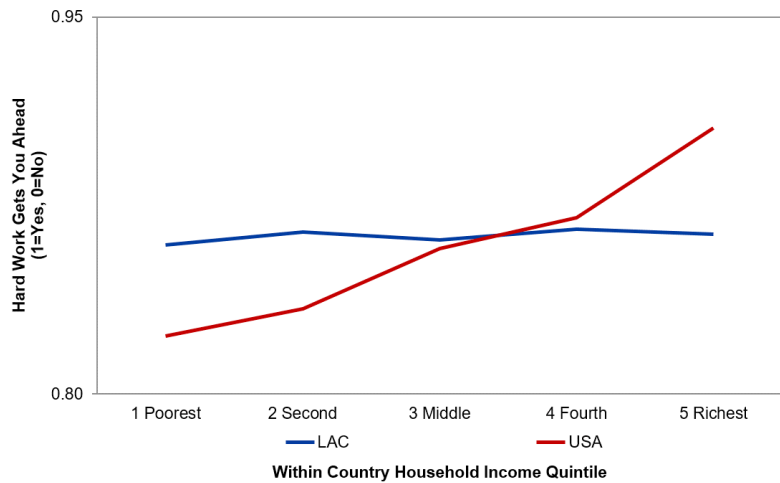
The graph above depicts the question, “Did you experience stress frequently yesterday: yes or no.” There is very little error in that question, because there are no framing effects. We can see that Latin Americans, on average, experience much less stress on a daily basis than do respondents in the U.S., but the bigger story is different. The poor experience more stress than the rich in Latin America, but the difference is not that big. The difference between the poor and the rich in the U.S. is almost twice as big. Not only do the poor in the U.S. experience much more stress than the poor in Latin America, but also much more stress than those that are rich.

Figure 3



The graph depicts smiling yesterday. As we can see, Latin Americans smile more on a daily basis than Americans do. Again, the big story is the difference between the poor and the rich, which is twice as big between the rich and the poor in the U.S. as the rich and the poor in Latin America. Latin America is a poor place compared to the U.S., so the results are striking.

Figure 4

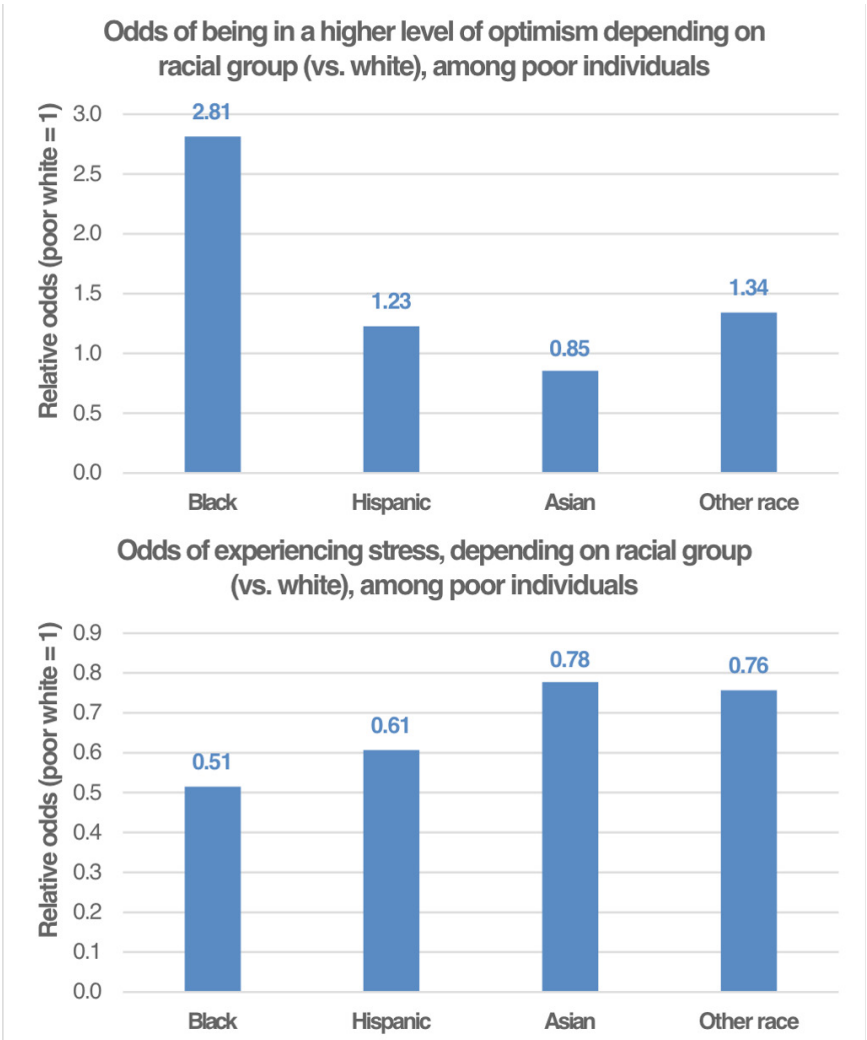


The graph above depicts the question, “If an individual in this country works hard, he or she can get ahead: yes or no.” It is the classic American dream question. Someone either believes yes or no. The results show that Latin Americans, whether they are poor or rich answer, the question the same way. However, in the U.S., the rich are twenty times more likely than the poor to say hard work will get you ahead. As a follow-up to these results a few years ago, I began to think about how this varies across poor people of different races in the U.S. — my findings here convinced me to write a book.

Exploring Race-Income Heterogeneities

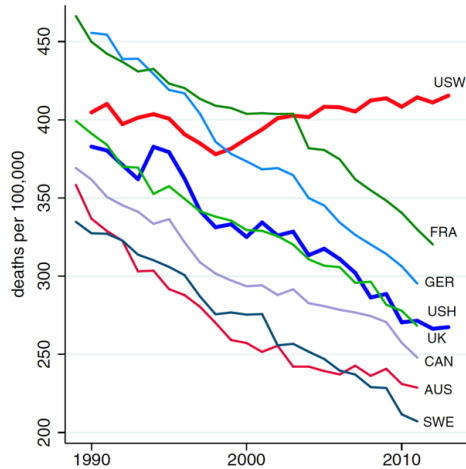
Several months before the first study uncovering the deaths of despair data came out, I compared poor Blacks, poor Whites, and poor Hispanics—those are the three biggest groups. It was the time of the Ferguson riots, the Baltimore riots, and a lot of concern about the African American community in the U.S. My findings, in the graph below, surprised me. With poor Whites as the comparator group (scoring 1), we found that poor Blacks were almost three times more likely to be optimistic about the future than poor Whites, and poor Hispanics were about one and a quarter times more optimistic. Poor Blacks are half as likely to report stress the previous day as poor Whites, Hispanics a little more than Blacks, but still much lower than Whites. There is something more fundamental going on here. We know that poor Blacks do not experience objectively less stress everyday than poor Whites. They are more objectively deprived. So what was going on? I spoke with sociologists that worked on African American culture and history. There are many hints of differential levels of resilience, but I still did not have a fully story. We explored further.

Figures 5a and b



The graph below simply depicts trends in mortality across countries, and shows how only the U.S. mortality rate is going up, and how it is driven by non-Hispanic Whites.

Figure 6



All-cause mortality, ages 45-54 for U.S. White non-Hispanic (USW), U.S. Hispanics (USH), and six comparison countries.
Source: Case & Deaton, 2015

This graph is from Case and Deaton (2015), the first findings of the kind. The chart shows U.S. Whites in red and the green line is U.S. Hispanics. African Americans are not shown here, but they have a slightly higher level of mortality than Hispanics. As we can see, in every other country, France, Germany, UK, Canada, Austria, Sweden, which are all of comparable income levels, mortality rates are going down except for U.S. Whites.

Upon seeing these results, I asked myself, “Is there a link between this and that?” If people are killing themselves prematurely, is it due to desperation, lack of hope, or stress? Do these things matter? If so, it is very easy for us to collect these metrics. If we had been

doing this earlier, and we knew there was a strong link, we might have noticed ill-being in a particular cohort well before we got to the point of the crisis that we are currently having a hard time reversing.

We used a long equation to assess the reported well-being for individual i in metropolitan statistical areas (MSA). In these MSAs, we looked at life satisfaction today and expected life satisfaction over five years, which is a pure optimism question. Then, we looked at stress, worry, anger, city satisfaction, and many other factors. We also had many controls, which included age, body mass index (BMI), gender, education, employment status, marital status, religion, and experiencing pain the previous day. Following this gathering of information, we added in the Centers for Disease Control and Prevention (CDC) composite death measure, which includes suicide, liver disease, accidental poisoning, and indeterminate deaths, as a means to test whether our markers of well-being—and ill-being—tracked with the mortality rate trends.

Matching Well-Being Markers with Deaths of Despair

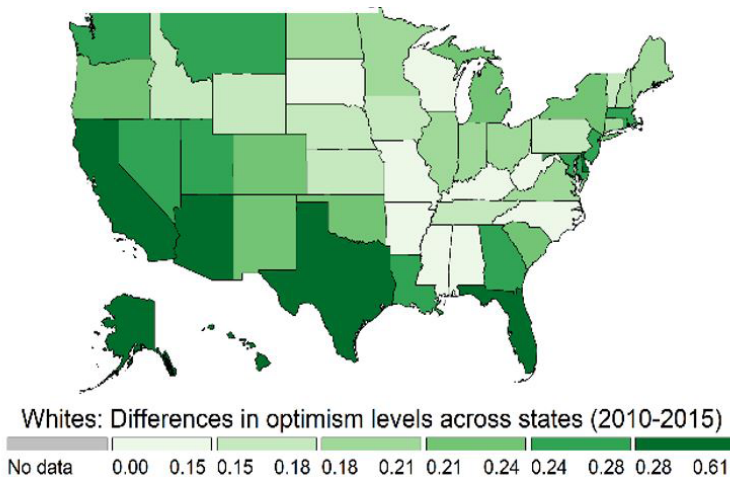
We looked at the individual level and then at an average MSA level to see if the metrics of well-being and ill-being matched robustly with the deaths of despair. We used the CDC mortality measure that encompasses preventable deaths due to opioids and suicide, amongst others. Originally, this rate was concentrated among individuals between the ages of 45 to 54. Now, this band of deaths of despair is closer to ages 35 to 65, as the death rate has increased. What we found at the individual level was that this MSA composite death rate for 35 to 64 year olds is negatively correlated with life satisfaction and optimism, and positively correlated with stress and worry. This could go two ways. If someone has no hope, and they are stressed and worried, they are more likely to fall into this death category. However, if someone lives in a place where there are many “deaths of despair” around them, it could make them

more likely to consume opioids or commit suicide. This research finds that the death trends matches very robustly with the well-being (ill-being) trends.

Then we looked at the role of place and health behaviors at the aggregate level (MSA level). We found that the percent of smokers per MSA negatively correlated with life satisfaction, and positively correlated with stress, which in turn, correlated with “deaths of despair.” The percent age of respondents who exercise positively correlated with current and future life satisfaction and negatively correlates with stress. (Graham and Pinto, 2017) Then, we started to get a picture of places that are more stressed and had worse health behaviors.

One characteristic of place is racial diversity. The share of Blacks positively correlates with life satisfaction and optimism, but on average, negatively correlates with stress. If there are more Blacks, and they are more optimistic and less stressed, those results will show up at the level of place—then all we need to do is look at a map.

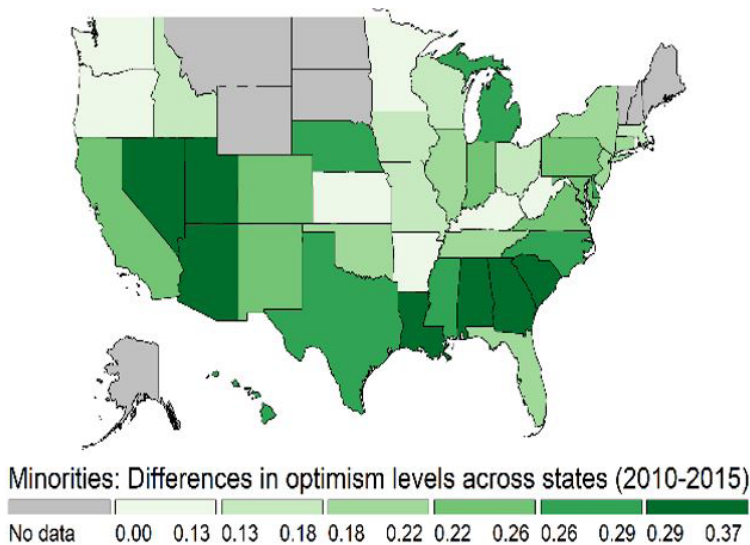
Figure 7a and b



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Note: Controls include age, gender, marital status, edducation, employment, religious preference, year and month of interview. Optimism is measured by best possible life anticipation (BPLA) scores on a 0-10 scale.

Source: Gallup Heathways



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These maps show where Whites were more optimistic and where minorities were more optimistic at the state level. The dark green states are where minorities are the most optimistic in the country. This is controlling for education, employment rates, and religious preference. If we look at the southern cluster of states (Louisiana, Mississippi, and Arkansas), there is a concentration of African American culture and music. However, these are objectively deprived places with horrible health indicators. On this graphic, we can see very heavily Hispanic-populated places. There is a trend,

whether it is shared cultural norms, or simply more diversity, that make minorities significantly more optimistic, even in places where they are more objectively deprived. This is something we cannot fully comprehend, but we can look at the same story for blue-collar Whites and see lack of hope and increased stress, all concentrated in places that are homogeneously white.

A Snapshot of New Research

We have been trying to understand these differences in resilience across races and places, and I have three sets of work happening at once. The first set is looking back historically at the Panel Study of Income Dynamics for the U.S., which has followed people born in the States from 1935-1945 until now. It is nationally representative. We found that there was an optimism question asked in the study, and it asks how someone thinks his or her life will work out on a sliding scale.

Respondents who were born between 1935 and 1945, and who reported being optimistic in their 20s, were much more likely to be alive in 2015, versus the non-optimists. We came across two other results that again suggest that if we had been following these metrics over time, we might have been quicker to notice the “deaths of despair,” or the roots of the “deaths of despair.”

We also found that women and Blacks increased their optimism in the 1970s. They started out as less optimistic than white males and quickly became more optimistic from the 1970s on. In contrast, less than college-educated Whites began their decline in optimism

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as early as the 1970s, about the same time that manufacturing declined. (O'Connor and Graham, 2018) Again, the research shows that we should have noticed the “deaths of despair” earlier, but we did not follow well-being, so we were very unaware.

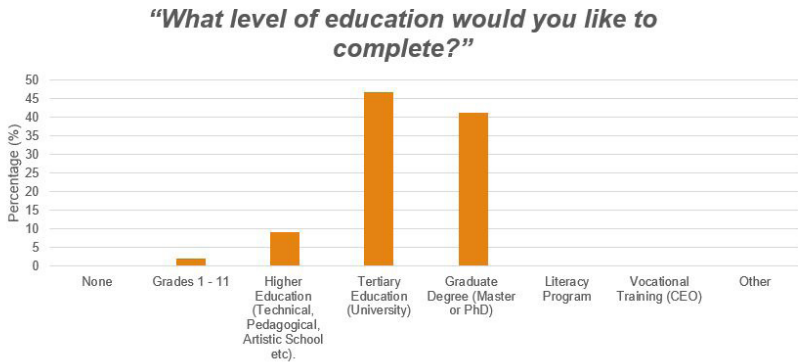
Another study I am working on in Peru involves hope and differential levels of resilience, where we find incredibly high education aspirations among poor young adults: 85% of our respondents say they are going to complete college or proceed to get their post-graduate education. In order to talk about optimism and hope being a good thing, we want to know and test for two things: “Are people mispredicting that they are optimistic, when in reality their lives are not better, and they are just naturally happy?” and “How long does hope and optimism last as a channel?” If someone is optimistic despite getting negative shocks, are they resilient? Do you retain that? How long does that last? We cannot fully answer the last question yet, but we did a test in a new panel from Gallup from 2010 to 2014.

Optimists in the first phase of our research do not predict their future life satisfaction perfectly. It is hard to do. Yet, they are quite close. If someone is asked, “On what point on this scale do you think you’ll be in five years,” they tend to retain a very consistent trend when asked again in the future. People who report being optimistic about the future in the first phase are still very optimistic about the future four or five years later, and they actually do better. (Graham and Pinto, 2018) We find that on average, they had more income gains over that period, and these are not only wealthy respondents, it is everybody.

Blacks remain the most optimistic group over time; there is a very modest decline in Black optimism, even after looking at the post-Trump election data for 2017, but the gap between poor Blacks and everybody else remains very large.

To begin the study in Peru, we took four hundred 18 and 19-year-old adolescents in a poor or semi-poor urban area—we also included whether they had water and electricity, and if there was access to a metro. We asked many different questions about household demographics, expectations, happiness, education, marital status, risky behavior, risky sexual behavior, and drug behavior in a confidential survey.

Figure 8



It is also very important to note that not one of these adolescents had a parent who went to college. The parents were mostly construction workers, taxi drivers, domestic servants, and trash collectors. When we asked the adolescents what level of education they would like to complete, 85% of them said they are going to receive a college or post graduate education. When we asked in a subsequent question whether they thought they could achieve that, 95% out of the 85% said yes. (Graham and Ruiz Pozuelo, 2018) We also found that the data showed these education aspirations matched closely with patterns in education outcomes. Therefore, we concluded that when someone has high educational aspirations and is optimistic about education in the future, they were more likely to complete an education.

Figure 9

Resilience among Low-Income Young Adults in Peru			
Aspirations	(1) Baseline	(2) Shocks	(3) Innate traits
Female	-0.04582 [-0.6]	-0.05973 [-0.8]	-0.08265 [-1.1]
Marital Status	-0.69206*** [-4.1]	-0.62296*** [-3.6]	-0.49615*** [-3.0]
Relative Income	0.12523* [1.7]	0.11402 [1.5]	0.05954 [0.8]
Employed	-0.21145*** [-2.9]	-0.22014*** [-3.0]	-0.19706*** [-2.7]
Sick		-0.01264 [-0.2]	0.00527 [0.1]
Sick family member		0.20725*** [2.6]	0.14361* [1.8]
Death of family member		-0.03169 [-0.3]	0.01225 [0.1]
Parent left the HH		-0.05611 [-0.8]	-0.03414 [-0.5]
Accident		-0.15669** [-2.0]	-0.17352** [-2.3]
Thievery		-0.01724 [-0.2]	0.00714 [0.1]
Happiness			0.04700* [1.9]
Belief in hard work			0.14413** [2.2]
Impatient			-0.19674*** [-2.8]
Internal locus of control			0.16741** [2.4]
Self-confidence			0.12601* [1.7]
Constant	2.03103*** [8.9]	2.09709*** [8.9]	0.64551 [1.5]
Observations	400	399	395
R-squared	0.0552	0.09	0.15
F test	6.826	3.741	4.490
t-statistics in brackets			
*** p<0.01, ** p<0.05, * p<0.10			

We also found that this correlates with people who have many of the innate character traits that I mentioned earlier. Happier adolescents were more likely to have high aspirations and believed in hard work, which was linked to higher education aspirations. (Graham and Ruiz-Pozuelo, 2018) This impatient variable on the chart above provides a measure of the discount rate. It shows that someone is much less likely to have high aspirations if they will not give up money today for investments the future. They are more likely to aspire towards a higher education if they believe they have more control of their life.

We also see that adolescents in the high aspirations group have had one or more negative shocks. They have been a victim of thievery, have a sick person in the household or a parent has walked out and left the household. In turn, they are very resilient to negative shocks. The only time they are not resilient is when they are sick themselves.

We have begun to explore this set of questions in work in Missouri. Some of the worst African American blights in the U.S. are in St. Louis City. Across the river there are former poor white coal mining towns with high opioid misuse. Remarkably, we found that the poor Blacks in St. Louis City are still incredibly optimistic, not only more so than poor Whites, but also than the rich across Delmar Boulevard in St. Louis county. Therefore, when we are able to ask the question, “What level of education would you like to complete?” in a future survey, we may hear a lot about negative shocks, but we posit that poor Blacks will have higher education aspirations than poor Whites.

Conclusion: There are Two Americas

In conclusion, there are two Americas. Research shows that people who believe in their future and are hopeful, whether it is because of intrinsic motivation, or their capacity to overcome constraints and invest in the future, do better. We have data showing big gaps in the

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U.S. between the poor and the rich, but we also have data showing a twist in terms of differences across races. Why do Blacks and Hispanics have comparatively lower rates of “deaths of despair?” Why are they more resilient? Why are they more hopeful?

A large factor in this story is the decline of the white working class, structural trends in the world economy, tech-driven growth, and more competition for low-scale jobs. We saw this in our study that took place in the 1970s. Additionally, in the U.S., there is particularly high inequality, weak public education, and an approach to welfare that stigmatizes recipients. Blue-collar Whites who tend to not trust the government, or support welfare programs but traditionally had the stable jobs and stable nuclear families, did not have a narrative for their futures when the jobs disappeared. They did not have the extended social ties and social capital that minorities do. Because minorities had faced such discrimination, they had fewer expectations about the American dream from the beginning, and they did not have access to blue-collar jobs. They had another set of narratives—and informal safety nets—in their lives to fall back on.

The working, blue-collar man in particular has lost his life narrative, and, not surprisingly, this is where we see the biggest percentage of prime-age males dropping out of the labor force, misusing opioids, and dying prematurely. All of these things are linked, although we cannot quite say how. There are also differential levels of resilience amongst these groups, which cannot fully be explained. We see it in lower suicide rates, but we also see it in the willingness of minority men to take other jobs. There are many jobs available in the health sector—white women, black men and women, Hispanic men and women will take these jobs. The data, however, shows that white males are least likely to do so.

Hope matters. We are finding that people with hope do better. We do not know how long that channel lasts. It seems to be robust. We

know that Blacks and Hispanics have much more of it than Whites, at least at the low-income level. We also do not know if hope and resilience can be learned. Is that something that we can teach or is this just the way it is?

Finally, it is inexpensive to collect well-being metrics. The UK has well-being metrics in their official national survey every year. Its four questions. It costs almost nothing to include, and the questions take little time to answer. We could have been regularly tracking this over time and we might have woken up to the problems we are currently facing much sooner. We might then have prevented this from becoming a social crisis of such a magnitude that it defies any one solution.

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